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Seq ID s 1-3

FILE 'REGISTRY' ENTERED AT 10:35:42 ON 28 JAN 2000
L1 100 S PKYVKQNTLKLAT | AAYAAAAAAKAA | SKNGTVTWAHETNNSA/SQSP

FILE 'CAPLUS' ENTERED AT 10:36:35 ON 28 JAN 2000
L2 123 S L1
L3 14 S L2 AND IMMUNOGEN?

=> d 1-14 .bevstr; sel hit l3 1-14 rn

L3 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:733277 CAPLUS
DOCUMENT NUMBER: 128:33478
TITLE: Free radical induced polymerization of synthetic peptides into polymeric **immunogens**
AUTHOR(S): Jackson, David C.; O-Brien-Simpson, Neil; Ede, Nicholas J.; Brown, Lorena E.
CORPORATE SOURCE: Cooperative Research Centre for Vaccine Technology and the Depatment MIcrobiology, University Melbourne, Parkville, 3052, Australia
SOURCE: Vaccine (1997), 15(15), 1697-1705
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Free radical induced polymn. of vinyl monomers such as the acryloyl peptides described here is a facile and rapid reaction used routinely, for example, in the polymn. of acrylamide and bisacrylamide for the assembly of polyacrylamide gels. The technol. allows the incorporation of many of the same or different peptide determinants into a single polymer chain. In this study large polymers contg. multiple copies of peptides representing T- and B-cell determinants of influenza hemagglutinin were constructed. The determinants retained antigenicity after the polymn. procedure and the polymers were highly **immunogenic**; the levels of antibody obtained after a single dose of polymeric **immunogen** were at least as great as those achieved only after repeated doses of the equiv. monomeric peptide. The technol. has a wide rang of potential applications, not the least significant of which is the construction of designer **immunogens** for third generation vaccine candidates.
IT **115044-51-4 122061-39-6 122061-44-3**
RL: RCT (Reactant)
(acrylylation of)
IT **199587-08-1P 199587-09-2P 199587-11-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(free radical-induced polymn. of)

L3 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:423747 CAPLUS

DOCUMENT NUMBER: 125:139958
TITLE: The assembly and immunological properties of non-linear synthetic **immunogens** containing T-cell and B-cell determinants
AUTHOR(S): Fitzmaurice, Catherine J.; Brown, Lorena E.; McInerney, Tracey L.; Jackson, David C.
CORPORATE SOURCE: Department Microbiology, University Melbourne, Parkville, Australia
SOURCE: Vaccine (1996), 14(6), 553-560
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB For the rational design of synthetic vaccines, a potential **immunogen** must contain the appropriate helper T-cell and B-cell determinants to elicit a strong and relevant immune response. In this study we describe a method for the assembly of antigenic determinants from influenza virus hemagglutinin onto a lysine-based support, resulting in dimeric and trimeric constructs bearing both T-cell and B-cell determinants. A panel of synthetic **immunogens** was constructed incorporating peptides representing: (i) the B-cell determinant TLKLATG and the T-cell determinant PKYVKQNTLKLA which overlaps this sequence in the heavy chain (HA1) of the hemagglutinin; and (ii) the same B-cell determinant with an alternate T-cell determinant ALNNRFQIKGVELKS from the light chain (HA2). With these peptides we were able to investigate the effects of altering the source of T-cell help, increasing the copy no. of B-cell determinants as well as comparing the presentation of determinants in either linear tandem or branched geometries. In general, peptides incorporating the non-native helper T-cell determinant in a branched conformation were superior **immunogens**, eliciting higher titers of both peptide-specific and virus-specific antibody. Increasing the copy no. of the B-cell determinant also proved to be an advantage in terms of increasing antibody titers. Other evidence was obtained indicating that presentation of determinants to T cells may be different for linear peptide constructs compared to branched **immunogens** bearing the same determinants.

IT **122061-39-6P 122061-44-3P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and immunol. characterization of synthetic multiple antigenic peptides that contain T-cell and B-cell determinants from influenza virus hemagglutinin)

L3 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:223166 CAPLUS
DOCUMENT NUMBER: 124:286345
TITLE: Induction of anergy in human T helper 0 cells by stimulation with altered T cell antigen receptor

ligands

AUTHOR(S): Tsitoura, Daphne C.; Holter, Wolfgang; Cerwenka, Adelheid; Gelder, Colin M.; Lamb, Jonathan R.

CORPORATE SOURCE: Infection and Immunity Section, Imperial Coll. Sci. Technol. Med., London, UK

SOURCE: J. Immunol. (1996), 156(8), 2801-8.
CODEN: JOIMA3; ISSN: 0022-1767

DOCUMENT TYPE: Journal

LANGUAGE: English

AB CD4+ T cells may become profoundly unresponsive to antigenic restimulation following ligation of TCR by **immunogenic** peptides bound to MHC class II mols. in the absence of costimulation. Furthermore, it has been reported that anergy can be induced as a consequence of engagement of TCR by analogs of antigenic peptides presented by live APCs. Here, based on resoln. of the crystal structure of an influenza virus hemagglutinin (HA) peptide (HA 306-318) bound to HLA-DRB1*0101, the authors investigated the potential of analogs with amino acid substitutions at those positions predicted to form interactions with TCR to differentially activate and/or anergize HA-specific human Th0 cells restricted by DR1 class II mols. For some analogs altering the affinity of peptide/TCR interactions revealed a direct pos. correlation between antigenicity and their ability to induce anergy. Nevertheless, certain HA peptide analogs functioned as partial agonists, which although they failed to stimulate clonal expansion, were capable of rendering the Th0 cells unresponsive to **immunogenic** rechallenge. Furthermore, differences were noticed in the characteristics of the anergic phenotype induced by selected analogs. Restimulation with the native peptide of Th0 cells pre-exposed to the HA analogs in the absence of costimulatory signals failed to uncouple IL-4 and IFN-.gamma. secretion; however, in some instances, dissocn. of proliferation from cytokine prodn. was obsd. The ability to differentially signal T cells through changing the affinity of peptide/TCR interactions may have implications in the potential use of altered TCR ligands in immunotherapy.

IT **122630-93-7**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(induction of anergy in HLA-DR1-restricted human Th0 helper cells by stimulation with altered TCR receptor ligands)

L3 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1996:43038 CAPLUS
DOCUMENT NUMBER: 124:84900

TITLE: Computer modeling for testing **immunogenicity** of peptides

INVENTOR(S): Reid, Robert H.; Sadegh-Nasseri, Scheherazade; Wolff, Marcia; Nauss, Jeffrey L.

Searcher : Shears 308-4994

PATENT ASSIGNEE(S): United States Dept. of the Army, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9531997	A1	19951130	WO 1994-US5697	19940520
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9472429	A1	19951218	AU 1994-72429	19940520
PRIORITY APPLN. INFO.:			WO 1994-US5697	19940520

AB Assay methods for detg. whether a peptide is likely to be **immunogenic** are based on a computer modeling of binding to a Class II MHC DR1 receptor. The method comprises (1) creating a mol. model of receptor DR1 class II MHC and minimizing the model of the DR1, (2) modeling a peptide to be tested and minimizing the model of the peptide, and (3) testing fit of model obtained in step 2 into the model obtained in step 1 to produce a composite receptor/peptide model. The result is then confirmed by competitive inhibition binding assays. The peptides are useful for eliciting an immune response for vaccination or the prodn. of antibodies or T-cells.

IT **122630-93-7 172547-90-9 172547-91-0**
RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(computer modeling for testing **immunogenicity** of peptides for prepg. vaccine)

L3 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:12134 CAPLUS
DOCUMENT NUMBER: 124:84265
TITLE: A synthetic peptide-based polyoxime vaccine construct of high purity and activity
AUTHOR(S): Rose, Keith; Zeng, Weiguang; Brown, Lorena E.; Jackson, David C.
CORPORATE SOURCE: Dep. of Medical Biochemistry, Univ. Medical Centre, Gemeva, CH 1211, Switz.
SOURCE: Mol. Immunol. (1995), 32(14/15), 1031-7
CODEN: MOIMD5; ISSN: 0161-5890
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An artificial protein contg. four copies of a peptide comprising the

C-terminal 23 residues of influenza virus hemagglutinin was constructed using oxime chem. and compared with two tetrameric multiple antigenic peptide (MAP) constructions of the same peptide displayed either radially or linearly which were made by conventional techniques. The tetra-oxime was much more homogeneous yielding a single peak on reversed phase HLPC and the correct mass spectrum. In addn., the tetra-oxime was found to be recognized by anti-peptide antibodies, to stimulate at low concns. a T-cell clone and also to elicit in mice high titers of antibodies which are able to recognize native virus. The modular polyoxime approach, which permits artificial proteins to be assembled rapidly, in high yield and in high purity, is expected to lead to an increase in the use of artificial proteins in vaccine technol.

IT **160818-61-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conjugation to cyclic peptide template)

IT **160870-54-2P**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(prepn. and **immunogenicity** of)

L3 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:271760 CAPLUS
DOCUMENT NUMBER: 122:157969
TITLE: Development of high potency universal DR-restricted helper epitopes by modification of high affinity DR-blocking peptides
AUTHOR(S): Alexander, Jeff; Sidney, John; Southwood, Scott; Ruppert, Joerg; Oseroff, Carla; Maewal, Ajesh; Snoke, Ken; Serra, Horacio M.; Kubo, Ralph T.; et al.
CORPORATE SOURCE: Cytel Corp., San Diego, CA, 92121, USA
SOURCE: Immunity (1994), 1(9), 751-61
CODEN: IUNIEH; ISSN: 1074-7613
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Pan DR-binding peptides engineered by introducing anchor residues for different DR motifs within a polyalanine backbone bound 10 of 10 DR mols. tested, with affinities, in most cases, in the nanomolar range. Because of the small Me group exposed for T cell recognition, these peptides were poor **immunogens** but effective blockers of DR-restricted antigen presentation. Introduction of bulky and charged residues (PADRE). These peptides elicited powerful responses in vitro from human peripheral blood mononuclear cells (PBMC). Because these cells also cross-react on certain mouse class II alleles, the authors could also demonstrate that PADRE peptides are active in vivo. In one example of their capacity to elicit T help, they were .apprx.1000 times more powerful

than natural T cell epitopes.

IT **122630-93-7**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(universal HLA-DR-restricted helper epitope development by modification of high affinity DR-blocking peptides)

L3 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:56757 CAPLUS
DOCUMENT NUMBER: 116:56757
TITLE: A synthetic peptide of influenza virus hemagglutinin as a model antigen and **immunogen**
AUTHOR(S): Jackson, David C.; Brown, Lorena E.
CORPORATE SOURCE: Univ. Melbourne, Parkville, 3052, Australia
SOURCE: Pept. Res. (1991), 4(3), 114-24
CODEN: PEREEO; ISSN: 1040-5704
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with refs. describing studies on a 24-residue synthetic peptide representing part of the amino acid sequence of the influenza virus hemagglutinin. This peptide was used as a model antigen to define short sequences and individual amino acid residues involved in and crit. for interaction with antibody and with T cells. These studies provide insight into the way in which an **immunogen** is viewed by the immune system and also the min. requirements necessary for the expression of **immunogenic** and antigenic activity. This information is helping in exploiting the use of synthetic peptides in the construction of designer **immunogens** which have potential as candidate vaccines.
IT **95710-97-7**
RL: BIOL (Biological study)
(of influenza virus hemagglutinin, as model antigen and **immunogen**)

L3 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:19374 CAPLUS
DOCUMENT NUMBER: 116:19374
TITLE: Effect of natural polymorphism at residue 86 of the HLA-DR .beta. chain on peptide binding
AUTHOR(S): Busch, Robert; Hill, C. Mark; Hayball, John D.; Lamb, Jonathan R.; Rothbard, Jonathan B.
CORPORATE SOURCE: ImmuLogic Pharm. Corp., Palo Alto, CA, 94304, USA
SOURCE: J. Immunol. (1991), 147(4), 1292-8
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Class I and class II MHC glycoproteins are highly polymorphic mols.

that bind antigenic peptides and present them on cell surfaces for recognition by T lymphocytes. Even though MHC polymorphism has long been known to affect both peptide binding and recognition by the TCR, the role of individual amino acids of MHC proteins in these interactions is poorly understood. To examine the effect of a small no. of amino acid residues on T cell stimulation, B lymphoblastoid cell lines homozygous for the closely related DR1 subtypes, Dw1 and Dw20, and the DR4 subtypes, Dw4 and Dw14, were compared for their ability to present an **immunogenic** influenza hemagglutinin peptide (HA307-319) to an antigen-specific, DR1,4-restricted T cell clone. B cell lines expressing DR1 Dw20 and DR4 Dw14 presented HA307-319 much less efficiently than DR1 Dw1 and DR4 Dw4 and bound a biotinylated analog of the same peptide less well. Anal. of DRB1 gene sequences suggested that polymorphism at residue 86 had a major effect on peptide binding. Differences in binding of a set of HA307-319 analogs biotinylated at each residue to cells expressing DR1 Dw1 and DR1 Dw20 suggested that the polymorphism affected the interactions of many peptide residues with the class II mol. In inhibition assays, DR1 Dw1 and DR4 Dw4 were shown to differ from DR1 Dw20 and DR4 DW14 in their length requirements for peptide binding. Using a larger panel of homozygous B cell lines expressing many class II haplotypes, a Ser-309 substituted HA307-319 analog was shown to bind to most B cell lines expressing Val-86 contg. alleles (including DR1 Dw20 and DR4 Dw14) but failed to bind most B cell lines expressing Gly-86 alleles (including DR1 Dw1 and DR4 Dw4). The results indicated that polymorphism at residue 86 influenced the specificity and affinity of peptide binding and affected the conformation of peptide-DR protein complexes without completely eliminating T cell recognition.

IT **122630-93-7 138146-52-8**
RL: BIOL (Biological study)
(HLA-DR binding of, as influenza A virus hemagglutinin peptide analogs, DR .beta.-chain residue 86 polymorphism in)

L3 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:469639 CAPLUS
DOCUMENT NUMBER: 115:69639
TITLE: Degenerate binding of **immunogenic** peptides to HLA-DR proteins on B cell surfaces
AUTHOR(S): Rothbard, J. B.; Busch, R.
CORPORATE SOURCE: ImmuLogic Pharm. Corp., Palo Alto, CA, 94304, USA
SOURCE: Zentralbl. Bakteriol., Suppl. (1990), 19(Bact. Protein Toxins), 437-45
CODEN: ZBASE2
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A T-cell determinant from influenza virus hemagglutinin (residues 307-319) which is recognized by an HLA-DR1-restricted T-cell clone,

was assayed for its ability to bind Epstein-Barr virus-transformed human B-lymphocytes homozygous for HLA-DR1. The ability of both a surprisingly large no. of DR alleles to bind the peptide and any one of MHC protein to bind a large variety of peptides is discussed in the context of MHC restriction of T-cell recognition.

IT **122630-93-7**
RL: BIOL (Biological study)
(binding of, as influenza virus hemagglutinin 307-319, to HLA-DR antigens of B-lymphocyte, MHC restriction of T-cell recognition in relation to)

L3 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1989:532050 CAPLUS
DOCUMENT NUMBER: 111:132050
TITLE: Studies on peptides. CLXVII. Solid-phase syntheses and immunological properties of fragment peptides related to human malaria circumsporozoite protein
AUTHOR(S): Akaji, Kenichi; Hayashi, Yoshio; Fujii, Nobutaka; Liu, Teh Yung; Berkower, Ira; Yajima, Haruaki
CORPORATE SOURCE: Fac. Pharm. Sci., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Chem. Pharm. Bull. (1989), 37(6), 1612-15
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A glycine-linked tetramer of Asn-Ala-Asn-Pro, a tandem repeated sequence of malaria circumsporozoite (CS) protein, was synthesized by the Boc-based solid phase method, followed by deprotection with 1M trimethylsilyl trifluoromethanesulfonate-thioanisole in trifluoroacetic acid. In addn., three tetramer-related peptides were similarly synthesized, i.e., a 34-residue peptide [linked with TH, a proposed T-cell epitope of CS, at the C-terminus of the tetramer], a 46-residue peptide and a 59-residue peptide [linked with HA or HA', two proposed T-cell epitopes of influenza hemagglutinin protein, at the N-terminus of the above 34-residue peptide]. Their immunol. properties were examd. by ELISA, for which three different congenic strains of mouse were used to raise the specific antibodies. Despite conjugation of T-cell epitopes to the tetramer, the mice of low-responder strains to the tetramer failed to produce any antibody specific to the tetramer. However, with the aid of recombinant interleukin 2 as an adjuvant, the low-responder mice produced antibody with relatively high titers.

IT **122727-97-3P**
RL: PREP (Preparation)
(prepn. and **immunogenicity** of malaria circumsporozoite protein-related)

L3 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1989:112726 CAPLUS
DOCUMENT NUMBER: 110:112726
TITLE: T-**immunogenic** peptides are constituted of rare sequence patterns. Use in the identification of T epitopes in the human immunodeficiency virus gag protein
AUTHOR(S): Claverie, Jean Michel; Kourilsky, Philippe; Langlade-Demoyen, Pierre; Chalufour-Prochnicka, Ada; Dadaglio, Gilles; Tekaia, Fredj; Plata, Fernando; Bougueleret, Lydie
CORPORATE SOURCE: Lab. Biol. Immunol. Mol. Retrovirus, Inst. Pasteur, Paris, F-75724, Fr.
SOURCE: Eur. J. Immunol. (1988), 18(10), 1547-53
CODEN: EJIMAF; ISSN: 0014-2980
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The sequences of a set of 63 peptides of demonstrated T **immunogenicity** have been analyzed and compared with 2 different randomly generated sets of sequences. This study indicates a statistically significant tendency of T **immunogenic** peptides to be constituted of clusters of rare tetrapeptides, as evaluated from the available sequence data banks. This result has been used to locate potential T epitopes in the human immunodeficiency virus (HIV) gag protein. Four peptides corresponding to the best candidate T epitopes (chosen in regions of conserved sequence among different virus isolates) have been synthesized and found to be recognized by a HIV-1-specific, HLA-A2-restricted human cytotoxic T cell line.

IT **85968-27-0**
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); BIOL (Biological study)
(T-lymphocyte antigenic determinant-contg., structural properties of)

L3 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1989:55715 CAPLUS
DOCUMENT NUMBER: 110:55715
TITLE: Minimum requirements for **immunogenic** and antigenic activities of homologs of a synthetic peptide of influenza virus hemagglutinin
AUTHOR(S): Tang, Xi Lin; Tregear, Geoffrey W.; White, David O.; Jackson, David C.
CORPORATE SOURCE: Dep. Microbiol., Univ. Melbourne, Parkville, 3052, Australia
SOURCE: J. Virol. (1988), 62(12), 4745-51
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English
Searcher : Shears 308-4994

OR 355
J65

AB Synthetic peptides of increasing length and corresponding in sequence to the C-terminal end of the HA1 mol. of influenza virus were constructed and examd. for their **immunogenic** and antigenic properties. Peptides contg. at least 4 C-terminal amino acids, when coupled to keyhole limpet hemocyanin, were capable of eliciting antibody in BALB/c mice that bound to the 24-residue parent peptide H3 HA1 (305 to 328). In the absence of a carrier, the C-terminal decapeptide was the shortest peptide capable of eliciting antibody. The specificity of this antibody was indistinguishable from that of a monoclonal antibody to the parent peptide which recognizes an epitope encompassed by the C-terminal 7 residues. All peptides contg. at least the C-terminal 4 residues were able to inhibit completely the binding of this monoclonal antibody to the parent peptide. Thus, (i) the tetrapeptide is capable of eliciting specific antibody when coupled to a carrier, (ii) this tetrapeptide possesses all of the antigenic information necessary to occupy the paratope of a monoclonal antibody elicited by the longer parent peptide, and (iii) the decapeptide contains all of the information necessary to elicit a specific immune response and therefore carries an epitope recognized by T cells as well as one recognized by B cells.

IT **95710-97-7 118448-58-1**
RL: BIOL (Biological study)
(of influenza A virus hemagglutinin, **immunogenicity** and antigenicity of)

L3 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1987:100529 CAPLUS
DOCUMENT NUMBER: 106:100529
TITLE: Antigenic determinants of influenza virus hemagglutinin. XII. The epitopes of a synthetic peptide representing the C-terminus of HA1
AUTHOR(S): Jackson, David C.; Tang, Xi Lin; Brown, Lorena E.; Murray, Julie M.; White, David O.; Tregear, Geoffrey W.
CORPORATE SOURCE: Dep. Microbiol., Univ. Melbourne, Parkville, 3052, Australia
SOURCE: Virology (1986), 155(2), 625-32
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A synthetic peptide comprising the C-terminal 24 amino acids of the heavy chain (HA1) of influenza virus hemagglutinin was constructed and examd. for antigenic and **immunogenic** activity. Monoclonal antibodies as well as polyclonal antisera raised against the synthetic peptide were able to bind to intact virus. The binding was greatly enhanced if the virus was first subjected to pH 5, suggesting that this treatment exposes the C-terminus of HA1.

Searcher : Shears 308-4994

Using synthetic analogs of the native sequence it was shown that the epitope recognized by one of the monoclonal antibodies encompasses one or more of the C-terminal 4 amino acids of HA1 (residues 325-328), while the other monoclonal antibody recognizes a different epitope which involves at least 1 of the 5 variable residues at positions 311-315.

IT **95710-97-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antigenic epitopes of, of influenza virus hemagglutinin C-terminus)

L3 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1985:147208 CAPLUS
DOCUMENT NUMBER: 102:147208
TITLE: Antibodies elicited by influenza virus hemagglutinin fail to bind to synthetic peptides representing putative antigenic sites
AUTHOR(S): Nestorowicz, Ann; Tregear, Geoffrey W.; Southwell, Christina N.; Martyn, John; Murray, Julie M.; White, David O.; Jackson, David C.
CORPORATE SOURCE: Dep. Microbiol., Univ. Melbourne, Parkville, 3052, Australia
SOURCE: Mol. Immunol. (1985), 22(2), 145-54
CODEN: MOIMD5; ISSN: 0161-5890
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A no. of peptides of the hemagglutinin (HA) of X-31 influenza virus have been synthesized. The amino acid sequences of some of these peptides represent regions of HA which have been postulated to form the antigenic sites of this mol. Animals were immunized with free peptide or peptide conjugated to a carrier and the resulting antisera examd. for their capacities to bind to homologous peptide, whole HA, reduced and alkylated HA, and intact virus. Not all peptides examd. in this way were **immunogenic**. Only antibodies raised against the C-terminus of HA1 peptide displayed binding to virus. This antiserum bound to the intact HA but not to the reduced and alkylated form of the mol. These results raise questions as to the feasibility of using synthetic peptides of the influenza HA in short linear sequences to elicit neutralizing antibody.

IT **95710-97-7DP**, hemocyanin conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **immunogenicity** of, of hemagglutinin of influenza virus, antibody cross-reactivity in relation to)

IT **95710-97-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **immunogenicity** of, of influenza virus, antibody cross-reactivity in relation to)

E1 THROUGH E16 ASSIGNED

=> fil reg

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DICTIONARY FILE UPDATES: 27 JAN 2000 HIGHEST RN 253689-79-1

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=> d que; s l4 and l1

L4 16 SEA FILE=REGISTRY ABB=ON PLU=ON (122630-93-7/BI OR
95710-97-7/BI OR 122061-39-6/BI OR 122061-44-3/BI OR
115044-51-4/BI OR 118448-58-1/BI OR 122727-97-3/BI OR
138146-52-8/BI OR 160818-61-1/BI OR 160870-54-2/BI OR
172547-90-9/BI OR 172547-91-0/BI OR 199587-08-1/BI OR
199587-09-2/BI OR 199587-11-6/BI OR 85968-27-0/BI)

L5 16 L4 AND L1

=> d 1-16 .bevreg1

L5 ANSWER 1 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **199587-11-6** REGISTRY
CN L-Serine, N-(1-oxo-2-propenyl)-L-cysteinyl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-leucyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-glutaminyl-L-isoleucyl-L-.alpha.-glutamyl- (9CI) (CA INDEX NAME)
SQL 24

SEQ 1 CPKYVKQNTL KLATGLRNVP QIES
========= ====
HITS AT: 2-14

REFERENCE 1: 128:33478

L5 ANSWER 2 OF 16 REGISTRY COPYRIGHT 2000 ACS

RN **199587-09-2** REGISTRY
CN Glycine, 1-(1-oxo-2-propenyl)-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonyl- (9CI) (CA INDEX NAME)
SQL 14

SEQ 1 PKYVKQNTLK LATG
========== ===
HITS AT: 1-13

REFERENCE 1: 128:33478

L5 ANSWER 3 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **199587-08-1** REGISTRY
CN L-Threonine, 1-(1-oxo-2-propenyl)-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl- (9CI) (CA INDEX NAME)
SQL 23

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
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HITS AT: 1-13

REFERENCE 1: 128:33478

L5 ANSWER 4 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **172547-91-0** REGISTRY
CN L-Alanine, N-[N-[N2-[N-[N-[N-[N-[N-[N-[N-(N-L-alanyl-L-alanyl)-L-tyrosyl]-L-alanyl]-L-alanyl]-L-alanyl]-L-alanyl]-L-alanyl]-L-lysyl]-L-alanyl]- (9CI) (CA INDEX NAME)
SQL 12

SEQ 1 AAYAAAAAAK AA
========== ==
HITS AT: 1-12

REFERENCE 1: 124:84900

L5 ANSWER 5 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **172547-90-9** REGISTRY
CN L-Alanine, L-seryl-L-lysyl-L-asparaginylglycyl-L-threonyl-L-valyl-L-threonyl-L-tryptophyl-L-alanyl-L-histidyl-L-.alpha.-glutamyl-L-threonyl-L-asparaginyl-L-asparaginyl-L-seryl- (9CI) (CA INDEX NAME)
SQL 16

SEQ 1 SKNGTVTWAH ETNNSA
========== ======

HITS AT: 1-16

REFERENCE 1: 124:84900

L5 ANSWER 6 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **160870-54-2** REGISTRY
CN L-Cysteinamide, N-acetyl-L-cysteinyl-N6-(oxoacetyl)-L-lysyl-L-alanyl-N6-(oxoacetyl)-L-lysyl-L-prolylglycyl-N6-(oxoacetyl)-L-lysyl-L-alanyl-N6-(oxoacetyl)-L-lysyl-, cyclic (1.fwdarw.10)-disulfide, (2.fwdarw.1'),(4.fwdarw.1''),(7.fwdarw.1'''),(9.fwdarw.1'''')-tetraaldoxime with 1-[(aminooxy)acetyl]-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl-L-threonine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Cysteinamide, N-acetyl-L-cysteinyl-N6-[[(carboxymethoxy)imino]acetyl]-L-lysyl-L-alanyl-N6-[[(carboxymethoxy)imino]acetyl]-L-lysyl-L-prolylglycyl-N6-[[(carboxymethoxy)imino]acetyl]-L-lysyl-L-alanyl-N6-[[(carboxymethoxy)imino]acetyl]-L-lysyl-, cyclic (1.fwdarw.10)-disulfide, (2.fwdarw.1'),(4.fwdarw.1''),(7.fwdarw.1'''),(9.fwdarw.1'''')-tetraamide with L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl-L-threonine
CI MAN
SQL 102,23,23,23,23,10

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
========== ===
HITS AT: 1-13

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
========== ===
HITS AT: 1-13

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
========== ===
HITS AT: 1-13

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
========== ===
HITS AT: 1-13

SEQ 1 CKAKPGKAKC

REFERENCE 1: 126:30079

REFERENCE 2: 124:84265

REFERENCE 3: 122:133873

L5 ANSWER 7 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **160818-61-1** REGISTRY
CN L-Threonine, (aminooxy)acetyl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Threonine, 1-[(aminooxy)acetyl]-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl-
SQL 23

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
========== ===
HITS AT: 1-13

REFERENCE 1: 127:17941

REFERENCE 2: 124:84265

REFERENCE 3: 122:133873

L5 ANSWER 8 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **138146-52-8** REGISTRY
CN L-Threonine, 1-[6-[[5-(hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl)-1-oxopentyl]amino]-1-oxohexyl]-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-Thieno[3,4-d]imidazole, L-threonine deriv.
SQL 14

SEQ 1 XPKYVKQNTL KLAT
========= ====
HITS AT: 2-14

REFERENCE 1: 116:19374

L5 ANSWER 9 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **122727-97-3** REGISTRY
CN L-Threonine, N2-[1-oxo-6-[(L-seryl-L-prolyl-L-lysyl-L-tyrosyl-L-

valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl-L-threonyl)amino]hexyl]-L-asparaginyl-L-alanyl-L-asparaginyl-L-prolyl-L-asparaginyl-L-alanyl-L-asparaginyl-L-prolyl-L-asparaginyl-L-alanyl-L-asparaginyl-L-prolyl-L-asparaginyl-L-alanyl-L-asparaginyl-L-prolyl-L-seryl-L-.alpha.-aspartyl-L-lysyl-L-histidyl-L-isoleucyl-L-.alpha.-glutamyl-L-glutaminyl-L-tyrosyl-L-leucyl-L-lysyl-L-lysyl-L-isoleucyl-L-lysyl-L-asparaginyl-L-seryl-L-isoleucyl-L-seryl- (9CI) (CA INDEX NAME)
CI MAN
SQL 59

SEQ 1 SPKYVKQNTL KLATGMRNVP EKQTXNANPN ANPNANPNAN PSDKHIEQYL
========= ====
51 KKIKNSIST
HITS AT: 2-14

REFERENCE 1: 111:132050

L5 ANSWER 10 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **122630-93-7** REGISTRY
CN L-Threonine, L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN HA 307-319
SQL 13

SEQ 1 PKYVKQNTLK LAT
========== ===
HITS AT: 1-13

REFERENCE 1: 131:335789

REFERENCE 2: 131:331734

REFERENCE 3: 131:256060

REFERENCE 4: 131:198317

REFERENCE 5: 131:43309

REFERENCE 6: 131:17693

REFERENCE 7: 130:280470

REFERENCE 8: 130:95829

REFERENCE 9: 129:80332

REFERENCE 10: 128:216235

L5 ANSWER 11 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **122061-44-3** REGISTRY
CN Glycine, L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonyl- (9CI) (CA INDEX NAME)
SQL 14

SEQ 1 PKYVKQNTLK LATG
========== ===
HITS AT: 1-13

REFERENCE 1: 128:33478

REFERENCE 2: 125:139958

REFERENCE 3: 121:202741

REFERENCE 4: 111:95062

L5 ANSWER 12 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **122061-39-6** REGISTRY
CN L-Threonine, L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl- (9CI) (CA INDEX NAME)
SQL 23

SEQ 1 PKYVKQNTLK LATGMRNVPE KQT
========== ===
HITS AT: 1-13

REFERENCE 1: 129:188357

REFERENCE 2: 128:33478

REFERENCE 3: 126:30079

REFERENCE 4: 125:165346

REFERENCE 5: 125:139958

REFERENCE 6: 122:211645

REFERENCE 7: 122:133873

REFERENCE 8: 111:95062

L5 ANSWER 13 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **118448-58-1** REGISTRY
CN L-Serine, L-cysteinyl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-glutaminyl-L-isoleucyl-L-.alpha.-glutamyl- (9CI) (CA INDEX NAME)
SQL 24

SEQ 1 CPKYVKQNTL KLATGMRNVP QIES
========= ====
HITS AT: 2-14

REFERENCE 1: 110:55715

L5 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **115044-51-4** REGISTRY
CN L-Serine, L-cysteinyl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-leucyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-glutaminyl-L-isoleucyl-L-.alpha.-glutamyl- (9CI) (CA INDEX NAME)
SQL 24

SEQ 1 CPKYVKQNTL KLATGLRNVP QIES
========= ====
HITS AT: 2-14

REFERENCE 1: 128:33478

REFERENCE 2: 111:95062

REFERENCE 3: 109:21449

L5 ANSWER 15 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **95710-97-7** REGISTRY
CN L-Threonine, L-cysteinyl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl- (9CI) (CA INDEX NAME)
SQL 24

SEQ 1 CPKYVKQNTL KLATGMRNVP EKQT
========= ====
HITS AT: 2-14

REFERENCE 1: 121:298650

REFERENCE 2: 120:296269

REFERENCE 3: 120:28956

REFERENCE 4: 116:56757

REFERENCE 5: 111:95062

REFERENCE 6: 110:55715

REFERENCE 7: 109:71678

REFERENCE 8: 109:21449

REFERENCE 9: 108:148637

REFERENCE 10: 106:100529

L5 ANSWER 16 OF 16 REGISTRY COPYRIGHT 2000 ACS
RN **85968-27-0** REGISTRY
CN L-Arginine, L-cysteinyl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-lysyl-L-glutaminyl-L-asparaginyl-L-threonyl-L-leucyl-L-lysyl-L-leucyl-L-alanyl-L-threonylglycyl-L-methionyl-L-arginyl-L-asparaginyl-L-valyl-L-prolyl-L-.alpha.-glutamyl-L-lysyl-L-glutaminyl-L-threonyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 936: PN: WO9959615 TABLE: 2 unclaimed protein
CN PN: US5976551 SEQID: 24 claimed sequence
SQL 25

SEQ 1 CPKYVKQNTL KLATGMRNVP EKQTR
========= ====
HITS AT: 2-14

REFERENCE 1: 132:40505

REFERENCE 2: 131:335786

REFERENCE 3: 129:94451

REFERENCE 4: 113:229080

REFERENCE 5: 110:112726

REFERENCE 6: 100:190243

REFERENCE 7: 99:3891

```
=> d his l6- ful; d 1-31 ibib abs

     (FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, LIFESCI, WPIDS, CONFSCI,
     SCISEARCH, JICST-EPLUS' ENTERED AT 10:38:55 ON 28 JAN 2000)
L6           80 SEA ABB=ON  PLU=ON  NAUSS J?/AU
L7         5060 SEA ABB=ON  PLU=ON  REID R?/AU
L8         5887 SEA ABB=ON  PLU=ON  WOLF M?/AU
L9            0 SEA ABB=ON  PLU=ON  L6 AND L7 AND L8
L10          22 SEA ABB=ON  PLU=ON  L6 AND (L7 OR L8)
L11           9 SEA ABB=ON  PLU=ON  L7 AND L8
L12       10996 SEA ABB=ON  PLU=ON  L6 OR L7 OR L8
L13          47 SEA ABB=ON  PLU=ON  L12 AND (IMMUNOGEN?(S)(PROTEIN OR
                PEPTIDE OR POLYPROTEIN OR POLYPEPTIDE))
L14          68 SEA ABB=ON  PLU=ON  L10 OR L11 OR L13
L15          31 DUP REM L14 (37 DUPLICATES REMOVED)

L15  ANSWER 1 OF 31  WPIDS COPYRIGHT 2000   DERWENT INFORMATION LTD
ACCESSION NUMBER:      1998-437043 [37]   WPIDS
DOC. NO. CPI:          C1998-132804
TITLE:                 New burst-free, sustained, programmable release
                       composition(s) - containing an active material in a
                       blend of uncapped and end-capped co polymer,
                       preferably a poly (DL-lactide-co glycolide).
DERWENT CLASS:         A96 B04 B05 B07 D16
INVENTOR(S):           BOEDEKER, E C; FRIDEN, P; JACOB, E; JEYANTHI, R;
                       MCQUEEN, C E; REID, R H; ROBERTS, F D;
                       SETTERSTROM, J A; TICE, T R; VAN HAMONT, J E
PATENT ASSIGNEE(S):    (USSA) US SEC OF ARMY
COUNTRY COUNT:         79
PATENT INFORMATION:

     PATENT NO   KIND DATE     WEEK      LA   PG
     -------------------------------------------
     WO 9832427    A1 19980730 (199837)* EN  422
        RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW
            NL OA PT SD SE SZ UG ZW
         W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI
            GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
            MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
            TT UA UG US UZ VN YU ZW
     AU 9863175    A  19980818 (199851)

APPLICATION DETAILS:

     PATENT NO   KIND                  APPLICATION      DATE
     ---------------------------------------------------------
     WO 9832427    A1                  WO 1998-US1556   19980127
     AU 9863175    A                   AU 1998-63175    19980127
                          Searcher   :    Shears   308-4994
```

- Author (s)

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9863175	A	Based on	WO 9832427

PRIORITY APPLN. INFO: US 1997-789734 19970127
AN 1998-437043 [37] WPIDS
AB WO 9832427 A UPAB: 19980916
A composition is claimed for the burst-free, sustained, programmable release of active material(s) over a period from 1-100 days, comprising: (a) an active material; and (b) a carrier which may contain pharmaceutically-acceptable adjuvant, comprised of a blend of uncapped and end-capped biodegradable-biocompatible copolymer.

Also claimed are: (1) a process for preparing controlled release compositions characterised by burst-free, sustained, programmable release of biologically active agents, comprising: (a) dissolving biodegradable poly(lactide/glycolide), in uncapped or end-capped form in methylene chloride, and dissolving a biologically active agent or active core in water; (b) adding the aqueous layer to the polymer solution and emulsifying to provide an inner water-in-oil (w/o) emulsion; (c) stabilising the w/o emulsion in a solvent-saturated aqueous phase containing a oil-in-water (o/w) emulsifier; (d) adding the w/o emulsion to an external aqueous layer containing o/w emulsifier to form a ternary emulsion; and (e) stirring the resulting water-in-oil-in-water (w/o/w) emulsion to remove the solvent, and rinsing hardened microcapsules with water and lyophilising the hardened microcapsules; (2) a method for the protection against infection of a mammal by pathogenic organisms comprising administering orally to the mammal an **immunogenic** amount of an immunostimulating composition consisting of an antigenic synthetic **peptide** encapsulated within a poly(lactide/galactide) matrix; (3) a vaccine for the immunisation of a mammal against infection by pathogenic organisms consisting of an antigen in an amount of 0.1-1% encapsulated within a biodegradable-biocompatible polymeric poly(DL-lactide-co-glycolide) matrix where the polymer is end-capped or a blend of uncapped and end-capped polymers; and (4) an immunostimulating composition comprising encapsulating-microspheres, which may contain an adjuvant, where the microspheres having a diameter of 1 nm to 10 microns are comprised of: (a) a biodegradable-biocompatible poly (DL-lactide-co-glycolide) as the bulk matrix, where the copolymer (lactide to glycolide L/G) ratio for uncapped and end-capped polymer is 0/100 to 1/99; and (b) an **immunogenic** substance comprising a bacteria, virus, fungus, parasite, or derivative, that serves to elicit the production of antibodies in animal subjects.

USE - The biocompatible and biodegradable microspheres can provide programmable sustained release of biologically active

agents, including polypeptides over a period of up to 100 days in an aqueous physiological environment with little or no burst release. They can be used for the delivery of e.g. insulins, AZT, diethyl silbestrol, 17-beta-oestradiol, oestron, ethinyl estradiol, mestranol, norethindrone, norgestryl, ethynodiol diacetate, lynoestrenol, medroxyprogesterone acetate, dimethisterone, megestrol acetate, chlormadinine acetate, norgestimate, norethisterone, ethisterone, melentate, norgestimate, norethisterone, ethisterone, melentate, melengestrol, norethynodrel, nonylphenoxypolyoxyethylene glycol, benzethonium chloride, chlorindanol, aluminium hydroxide, calcium carbonate, magnesium carbonate, sodium carbonate, chloropromaquine HCl, clozapine, mesoridazine, metiapine, reserpine, thioridazine, chlordiazepoxide, diazepam, meprobamate, temazepam, codeine, phenobarbital, sodium pentobarbital, sodium secobarbital, testosterone, testosterone propionate, sulphonamides, 4-aminoquinolines, 8-aminoquinolines, pyrimethamine, mazindol. phentermine, L-dopa, atropine, methscopolamine bromide, dextromethorphan, noscapine, Rauwolfia alkaloids, nitroglycerin, organic nitrites, pentaerythriotetranitrate, potassium chloride, ergotamine with and without caffeine, hydrogenated ergot alkaloids, dihydroergocristine methanesulphate, dihydrooergocornine methanesulphonate, dihydroergokroyptine methanesulphate, atropine sulphate, Belladonna, hyoscine hydrobromide, dihydrocodienone, meperidine, morphine, salicylates, asprin, acetaminophen, d-propoxyphene, ceflacor, cefuroxime, chloramphenical, gentamycin, Kanamycin A, Kanamycin B, ampicillin, amoxicillin, streptomycin A, antimycin A, chloropamtheniol, metromidazole, oxytetracycline, penicillin G, minocycline, ciprofloxacin, ofoxacin, clarithromycin, frythromycin (sic), gentamicin, amikacin, tobramycin, kanamycin, ampicillin, polymyxin-B, amphotericin-B, aztrofonam, chloramphenicol, fusidans, lincosamides, metronidazole, nitro-furantion, imipenem/cilastin, quinolones, rifampin, polyenes, sulphonamides, trimethoprim, vancomycin, teicoplanin, imidazoles, mephenytoin, phenobarbital, trimethadione, triethylperazine, chlorophinazine, dimenhydrinate, diphenhydramine, perphenazine, tripelennamine, hydrocortisone, prednisolone, prednisone, allopurinol, indomethacin, phenylbutazone, prostaglandin, thiotepa, chloramucil, cyclophosphamide, melphalan, nitrogen mustard, methotrexate, aztreonam, and refampin.
Dwg.0/54

L15 ANSWER 2 OF 31 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 97426677 MEDLINE
DOCUMENT NUMBER: 97426677
TITLE: Linear epitopes of colonization factor antigen I and peptide vaccine approach to enterotoxigenic Escherichia coli.
AUTHOR: Cassels F J; Jarboe D L; **Reid R H**; Lees A; Deal C D

Searcher : Shears 308-4994

CORPORATE SOURCE: Department of Gastroenterology, Walter Reed Army Institute of Research, Washington, DC 20307, USA.
SOURCE: JOURNAL OF INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY, (1997 Jul) 19 (1) 66-70.
Journal code: CTU. ISSN: 1367-5435.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; B
ENTRY MONTH: 199711
ENTRY WEEK: 19971103
AB Enterotoxigenic Escherichia coli (ETEC) cause diarrhea in infants and in travelers to developing countries. The bacteria utilize colonization factors (CF) for adherence to intestinal epithelia, then release toxins causing diarrhea. CF are strong **immunogens** as well as protective antigens. While 20 ETEC CF have been described in the literature, 11 CF are prominent enough to be considered for vaccine targeting. Of this group, six of the members fall into the CFA/I family of CF. Geysen pin (**peptide**) linear epitope analysis demonstrated that three regions containing linear epitopes exist in CFA/I, and that both B- and T-cell linear epitopes of CFA/I were concentrated at the N-terminus of the **protein**. We have determined N-terminal sequence of the CFA/I family members not previously sequenced. Comparison of the **protein** sequence of the six members of the family showed a strong homology up to residue 36. A **peptide** of 36 amino acids representing a consensus of the six sequences was synthesized and used to immunize animals. The antibody induced to the **peptide** was reactive to the **peptide** as well as cross-reactive to each member of the CFA/I family in Western blots. In addition, this antibody agglutinated three of the six members of the CFA/I family when added to whole cells expressing the native CF. We are currently evaluating different carriers and conjugation methods to maximize production of high titer, agglutinating antibody. It is hoped that this and related research will result in an effective and inexpensive cross-reactive and cross-protective ETEC vaccine.

L15 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 2
ACCESSION NUMBER: 1996:43038 CAPLUS
DOCUMENT NUMBER: 124:84900
TITLE: Computer modeling for testing **immunogenicity** of **peptides**
INVENTOR(S): **Reid, Robert H.**; Sadegh-Nasseri, Scheherazade; Wolff, Marcia; **Nauss, Jeffrey L.**
PATENT ASSIGNEE(S): United States Dept. of the Army, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9531997	A1	19951130	WO 1994-US5697	19940520
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9472429	A1	19951218	AU 1994-72429	19940520
PRIORITY APPLN. INFO.:			WO 1994-US5697	19940520

AB Assay methods for detg. whether a **peptide** is likely to be **immunogenic** are based on a computer modeling of binding to a Class II MHC DR1 receptor. The method comprises (1) creating a mol. model of receptor DR1 class II MHC and minimizing the model of the DR1, (2) modeling a peptide to be tested and minimizing the model of the peptide, and (3) testing fit of model obtained in step 2 into the model obtained in step 1 to produce a composite receptor/peptide model. The result is then confirmed by competitive inhibition binding assays. The peptides are useful for eliciting an immune response for vaccination or the prodn. of antibodies or T-cells.

L15 ANSWER 4 OF 31 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 95398862 MEDLINE
DOCUMENT NUMBER: 95398862
TITLE: Accuracy of a structural homology model for a class II histocompatibility protein, HLA-DR1: comparison to the crystal structure.
AUTHOR: **Nauss J L; Reid R H;**
Sadegh-Nasseri S
CORPORATE SOURCE: Department of Gastroenterology, Walter Reed Army Institute of Research, Washington, D.C. 20307-5100, USA.
SOURCE: JOURNAL OF BIOMOLECULAR STRUCTURE AND DYNAMICS, (1995 Jun) 12 (6) 1213-33.
Journal code: AH2. ISSN: 0739-1102.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199512

AB Structural homology modeling is used to test the accuracy by which a Class I major histocompatibility complex (MHC) could be used to model a Class II MHC. The crystal structure of HLA-aw68 served as a reference molecule to model HLA-DR1. The resulting model was

compared to the recently released crystal structure by Brown et al. (Nature, Vol. 364, p. 33-39 (1993)). The overall tertiary structure motif (two alpha-helices and a beta-sheet forming a peptide binding cleft) was maintained. However, significant deviations in the secondary structure elements were found between the model and the DR1 crystal structure. These deviations were consistent with the differences between Class I and Class II crystal structures. In regions where the model and DR1 crystals structures are most similar, side chain orientations are also similar. Specific peptide-MHC interactions are discussed and compared with the crystal structure results.

L15 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1994:708281 CAPLUS
DOCUMENT NUMBER: 121:308281
TITLE: Vaccines against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres
INVENTOR(S): **Reid, Robert H.**; Boedeker, Edgar C.
PATENT ASSIGNEE(S): United States Dept. of the Army, USA
SOURCE: PCT Int. Appl., 215 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9421289	A1	19940929	WO 1994-US2536	19940309
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9464001	A1	19941011	AU 1994-64001	19940309
EP 681478	A1	19951115	EP 1994-911515	19940309
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:			US 1993-34949	19930322
			WO 1994-US2536	19940309

AB Oral, parenteral, and intestinal vaccines are provided which comprise an antigen, such as colony factor antigen (CFA/II) or hepatitis B surface antigen, and an optional adjuvant enclosed within microspheres of biodegradable, biocompatible DL-lactide/glycolide copolymer. The microspheres are of a size range (.apprx.1 ng or 10 .mu.m) specifically taken up by gut-assocd. lymphoid tissue (primarily Peyer's patches). They addnl. contain

AF/R1 pili of Escherichia coli, which promote attachment to the intestinal mucosa and lymphocyte proliferation. Inclusion of antigen CFA/I from pili of enterotoxigenic E. coli induces immunity to this protein and homologous antigens CS1, CFA/II, and CFA/IV and thereby prevents attachment of pathogens contg. these antigens. The complete amino acid sequence of CFA/I was revised, and the **immunogenicity** of **peptides** derived from CFA/I and AF/R1 was detd. in monkeys to identify T- and B-cell epitopes for use in vaccines.

L15 ANSWER 6 OF 31 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 95061067 MEDLINE
DOCUMENT NUMBER: 95061067
TITLE: Immunogenicity, safety and tolerability of varying doses and regimens of inactivated hepatitis A virus vaccine in Navajo children.
AUTHOR: Newcomer W; Rivin B; **Reid R**; Moulton L H; Wolff M; Croll J; Johnson C; Brown L; Nalin D; Santosham M
CORPORATE SOURCE: Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD 21205.
SOURCE: PEDIATRIC INFECTIOUS DISEASE JOURNAL, (1994 Jul) 13 (7) 640-2.
Journal code: OXJ. ISSN: 0891-3668.
PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199502

AB The Navajo are known to be at high risk for hepatitis A virus (HAV) infection. This study investigated the safety and **immunogenicity** of an investigational, alum-adjuvanted, formalin-inactivated HAV vaccine (VAQTA) developed by Merck Research Laboratories in Navajo children. One hundred two of 212 children, ages 4 to 12 years, were HAV-seronegative (< 10 mIU/ml by an enhanced sensitivity modification of the HAVAB; Abbott). Ninety of these children received the HAV vaccine. Study participants were given vaccines containing various viral **protein** concentrations: Group A (n = 18), 6 units; Group B (n = 36), 13 units; and Group C (n = 36), 25 units HAV **protein** (1 unit approximately 1 ng viral **protein** antigen). Three-dose (0, 8, 24 weeks) and two-dose (0, 24 weeks) regimens were compared in subgroups within B and C. The vaccine was well-tolerated and there were no serious adverse reactions; no vaccinee developed hepatitis A. After 1 dose 82 to 100% of children seroconverted (> or = 10 mIU/ml, modified HAVAB; Abbott) and 100% seroconverted after 2 doses. After 1 dose the geometric mean titer for antibody was: Group

A, 22 mIU/ml; Group B, 18 mIU/ml; and Group C, 38 mIU/ml. After 3 doses geometric mean titers increased to 10,106 mIU/ml in Group A, 7258 mIU/ml in Group B and 11,856 mIU/ml in Group C. Further field studies are indicated to evaluate its use in high risk populations, such as the Navajo.

L15 ANSWER 7 OF 31 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 95017333 MEDLINE
DOCUMENT NUMBER: 95017333
TITLE: Postlicensure effectiveness of the Haemophilus influenzae type b polysaccharide-Neisseria meningitidis outer-membrane protein complex conjugate vaccine among Navajo children.
AUTHOR: Harrison L H; Tajkowski C; Croll J; **Reid R**; Hu D; Brenneman G; Weatherholtz R C; Santosham M
CORPORATE SOURCE: Center for American Indian and Alaska Native Health, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland..
SOURCE: JOURNAL OF PEDIATRICS, (1994 Oct) 125 (4) 571-6. Journal code: JLZ. ISSN: 0022-3476.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Cancer Journals
ENTRY MONTH: 199501

AB The incidence of invasive Haemophilus influenzae type b (Hib) infection was decreased significantly among Navajo children since the licensure of Hib conjugate vaccines, even though two lots of Hib (polyribosylribitol phosphate)-meningococcal B outer-membrane **protein** conjugate vaccine (PRP-OMP) widely used among the Navajo were later found to be of low **immunogenicity**. We measured the effectiveness of all Hib conjugate vaccines combined, PRP-OMP alone, and the PRP-OMP lots with lower-than-expected **immunogenicity** among Navajo infants and children. This was a matched case-control study using active, laboratory-based surveillance for the ascertainment of Navajo children 2 1/2 to 59 months of age with invasive Hib infection; 45 patients with infection and 180 control subjects were enrolled. The effectiveness of one, two, and three doses, respectively, of all Hib conjugate vaccines combined was 96% (95% confidence interval (CI) 65%, 99%), 99% (95% CI, 69%, 100%), and 99% (95% CI - 57%, 100%). The effectiveness of one or more doses of PRP-OMP was 95% (95% CI, 66%, 99%). The effectiveness of a single dose of the lots of lower-than-expected **immunogenicity** was 89% (95% CI, -8%, 99%). The Hib conjugate vaccine coverage increased from 49% during 1991 to 94% during 1992; no control subjects younger than 18 months of age were enrolled during 1993. The occurrence of invasive Hib infections in this population after licensure of Hib conjugate

vaccines was the result of gradual vaccine uptake, not poor vaccine effectiveness. The use of PRP-OMP has been highly effective despite concerns about the **immunogenicity** of several lots.

L15 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 6
ACCESSION NUMBER: 1994:28872 CAPLUS
DOCUMENT NUMBER: 120:28872
TITLE: **Immunogenicity** evaluation of a lipidic amino acid-based synthetic **peptide** vaccine for Chlamydia trachomatis
AUTHOR(S): Zhong, Guangming; Toth, Istvan; **Reid, Ronald**; Brunham, Robert C.
CORPORATE SOURCE: Univ. Manitoba, Winnipeg, MB, Can.
SOURCE: J. Immunol. (1993), 151(7), 3728-36
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lipidic amino acid-based synthetic peptides derived from the variable domains (VD) of C. trachomatis outer membrane protein 1 were evaluated as potential candidate sequences in a vaccine. A peptide sequence designated P2 from the VD IV of serovar B contained a B cell epitope capable of eliciting antibodies binding to serovar B elementary bodies (EB) and a T helper site capable of presentation by multiple H-2 alleles. Polymn. of the P2 into poly-lysine to form lipid core **peptides** (LCP) significantly enhanced **immunogenicity** compared with P2 monomer alone. The LCP system incorporates lipidic amino acids into the poly-lysine system and enhances lipophobicity and membrane binding effects of the peptide. A second peptide sequence derived from the VD I of serovar C was cosynthesized with P2 into lipidic poly-lysine LCP and was designated LCP-H1. Antibodies to this construct reacted at high titer with EB of the 3 major trachoma causing C. trachomatis serovars A, B, and C. LCP-H1 was immunogenic among 4 of 5 murine H-2 alleles. Pepscan anal. showed that the fine specificity of antibodies generated to LCP-H1 were directed to the predetd. neutralizing epitope sequences. An in vitro HAK cell neutralization assay showed that LCP-H1 elicited neutralizing antibodies to serovars A, B, and C, but these were of low titer. Because LCP-H1 antibodies bound to the peptide sequence with 10-100-fold higher titer than to EB, the low neutralization titers most likely result from conformational differences between the synthetic peptide and antigenic sites on the native organism. Modification of LCP-H1 to incorporate a predefined conformation may result in improved antigenic properties.

L15 ANSWER 9 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1993:157791 BIOSIS
DOCUMENT NUMBER: PREV199344076591
TITLE: Pili in microspheres protect rabbits from diarrhoea

induced by Escherichia coli strain RDEC-1.

AUTHOR(S): McQueen, C. E. (1); Boedeker, E. C.; **Reid, R.**; Jarboe, D.; **Wolf, M.**; Le, M.; Brown, W. R.

CORPORATE SOURCE: (1) Dep. Gastroenterol., Walter Reed Army Inst. Res., Washington, DC 20307 USA

SOURCE: Vaccine, (1993) Vol. 11, No. 2, pp. 210-206.
Meeting Info.: International Conference on Vaccines for Enteric Diseases Cambridge, England, UK April 13-15, 1992
ISSN: 0264-410X.

DOCUMENT TYPE: Article
LANGUAGE: English

L15 ANSWER 10 OF 31 MEDLINE DUPLICATE 7

ACCESSION NUMBER: 93175121 MEDLINE
DOCUMENT NUMBER: 93175121

TITLE: Pili in microspheres protect rabbits from diarrhoea induced by E. coli strain RDEC-1.

AUTHOR: McQueen C E; Boedeker E C; **Reid R**; Jarboe D; **Wolf M**; Le M; Brown W R

CORPORATE SOURCE: Department of Gastroenterology, Walter Reed Army Institute of Research, Washington, DC 20307.

SOURCE: VACCINE, (1993) 11 (2) 201-6.
Journal code: X6O. ISSN: 0264-410X.

PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199305

AB We tested whether pilus **proteins** of rabbit diarrhoeagenic Escherichia coli (RDEC-1), incorporated into biodegradable microspheres, could function as safe and effective oral **immunogens** in the rabbit diarrhoea model. The RDEC-1 adhesin, AF/R1, incorporated into poly(D,L-lactide-co-glycolide) microspheres, was administered intraduodenally. Vaccinated and unvaccinated rabbits were challenged with RDEC-1 and killed 1 week later. Vaccination with AF/R1 in microspheres did not cause diarrhoea or weight loss. After challenge, rabbits given AF/R1 in microspheres, in contrast to unvaccinated animals, remained in good health. RDEC-1 attachment to caecal epithelium of vaccinated rabbits was reduced ($p = 0.02$), whereas numbers of RDEC-1 in intestinal fluids were little affected. Also, in vaccinated animals, biliary anti-AF/R1 IgA levels were increased, and AF/R1-induced blast-cell transformation was vigorous in spleen cell cultures. We conclude that vaccination with AF/R1 in microspheres was safe and protected rabbits against RDEC-1 disease, probably by interfering with adherence of the bacteria to the intestinal mucosa. The interference might have been due to the presence of specific antibodies secreted

in bile.

L15 ANSWER 11 OF 31 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 93175116 MEDLINE
DOCUMENT NUMBER: 93175116
TITLE: Preclinical evaluation of microencapsulated CFA/II oral vaccine against enterotoxigenic E. coli.
AUTHOR: **Reid R H**; Boedeker E C; McQueen C E; Davis D; Tseng L Y; Kodak J; Sau K; Wilhelmsen C L; Nellore R; Dalal P; et al
CORPORATE SOURCE: Department of Gastroenterology, Walter Reed Army Institute of Research, Washington, DC 20307-5100.
SOURCE: VACCINE, (1993) 11 (2) 159-67.
Journal code: X6O. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199305
AB Colonization Factor Antigen (CFA/II) from enterotoxigenic Escherichia coli (ETEC) prepared under good manufacturing practices (GMP) was successfully incorporated into biodegradable poly(D,L-lactide-co-glycolide) (PLGA) polymer microspheres (BPM) under GMP and found to be safe and **immunogenic** when administered intraduodenally to rabbits. Following vaccination, Peyer's patch cells responded by lymphocyte proliferation to in vitro challenge with CFA/II. Also, B cells secreting specific anti-CFA/II antibodies were found in spleens following vaccination. No pathological changes were found following total necropsies of ten rabbits vaccinated with CFA/II BPM. Sixty-three per cent of the CFA/II BPM were between 5 and 10 microns diameter by volume particle size distribution; 1.17% **protein** content; 2.15% moisture; < 0.01% acetonitrile; 1.6% heptane; 22 non-pathogenic bacteria and three fungi per 1 mg **protein** dose; and passed the general safety test. We conclude that the CFA/II BPM oral vaccine is **immunogenic** and safe to begin a Phase I clinical safety study following Investigational New Drug approval.

L15 ANSWER 12 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 9
ACCESSION NUMBER: 1993:313052 BIOSIS
DOCUMENT NUMBER: PREV199345019577
TITLE: Binding interactions of peptides in a structural homology model of the DR1 class II MHC.
AUTHOR(S): **Nauss, Jeffrey L.**; **Reid, Robert H.**
; Sadegh-Nasseri, Scheherazade
CORPORATE SOURCE: Dep. Gastroenterol., Walter Reed Army Inst. Res., Washington, DC 20307
SOURCE: Journal of Immunology, (1993) Vol. 150, No. 8 PART 2, pp. 41A.

Meeting Info.: Joint Meeting of the American Association of Immunologists and the Clinical Immunology Society Denver, Colorado, USA May 21-25, 1993
ISSN: 0022-1767.
DOCUMENT TYPE: Conference
LANGUAGE: English

L15 ANSWER 13 OF 31 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1992-398530 [48] WPIDS
CROSS REFERENCE: 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]
DOC. NO. CPI: C1992-176755
TITLE: Protection against entero-pathogenic organisms - comprises oral admin. of compsn. consisting of synthetic peptide contg. CFA-I pilus protein T-cell epitope(s) and/or B-cell epitope(s) encapsulated in biodegradable polymeric matrix.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): BOEDEKER, E C; CASSELS, F J; JARBOE, D; **REID, R H**; SETTERSTROM, J A
PATENT ASSIGNEE(S): (USSA) US SEC OF ARMY
COUNTRY COUNT: 18
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9219263	A1	19921112	(199248)*	EN	121
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE					
W: AU CA FI JP NL NO					
AU 9183036	A	19921221	(199311)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9219263	A1	WO 1991-US3328	19910513
AU 9183036	A	AU 1991-83036	19910513
		WO 1991-US3328	19910513

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9183036	A	Based on	WO 9219263

PRIORITY APPLN. INFO: US 1991-690485 19910424
AN 1992-398530 [48] WPIDS
Searcher : Shears 308-4994

CR 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]

AB WO 9219263 A UPAB: 19980730

A novel method for the protection against infection of a human or non-human mammal by enteropathogenic organisms comprises administering orally to the mammal an **immunogenic** amt. of a pharmaceutical compsn. consisting essentially of an antigenic synthetic **peptide** contg. CFA/I pilus **protein** T-cell epitopes; B-cell epitopes or mixts. of the two, encapsulated within a biodegradable polymeric matrix consisting of poly(DL-lactide-co- glycolide) having a relative ratio betweeen the amt. of lactide and glycolide components within the range of 48:52 to 58:42.

Also claimed is a vaccine for the immunisation of a human or non-human mammal against infection by enteropathogenic organisms consisting essentially of an antigenic synthetic peptide in the amt. of 0.1 to 1% encapsulated within a biodegradable-biocompatible polymeric matrix. More specifically the antigenic synthetic peptide is selected from those given in the specification.

USE/ADVANTAGE - The method provides extremely effective protection against bacterial or viral infections in the tissue of a mammal. The method protects against bacteria including Salmonella typhi, Shigella sonnei, S. flexnen, S. dysenteriae, S. boydii, E. coli, Vibrio cholera, yersinia, staphylococcus, clostridium and campylobacter. Viruses protected against include hepatitis A, rotaviruses, polio virus, HIV, Herpes, Simplex virus types 1 and 2, Varicella-zoster virus, Epstein-Barr virus and cytomegalo viruses. The microspheres do not have to be made up just prior to use as liposomes do and only a small amt. of antigen is required when dispersed within microspheres compared to larger amts. when antigen is used alone for intestinal immunisation. The antigen may be used orally whilst alone it may not be effective, even in large amts.. Free peptides may be used which alone are ineffective for intestinal infection. Intestinal T-cell responses to the antigens dispersed within microspheres indicate that long-lived intestinal immunity will be established

Dwg.0/78

L15 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 10

ACCESSION NUMBER: 1993:5163 CAPLUS

DOCUMENT NUMBER: 118:5163

TITLE: Analysis of Escherichia coli colonization factor antigen I linear B-cell epitopes, as determined by primate responses, following protein sequence verification

AUTHOR(S): Cassels, Frederick J.; Deal, Carolyn D.; **Reid, Robert H.**; Jarboe, Daniel L.; **Nauss, Jeffrey L.**; Carter, John M.; Boedeker, Edgar C.

Searcher : Shears 308-4994

CORPORATE SOURCE: Dep. Gastroenterol., Walter Reed Army Inst. Res., Washington, DC, 20307, USA
SOURCE: Infect. Immun. (1992), 60(6), 2174-81
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Colonization factor antigen I (CFA/I)-bearing strains of enterotoxigenic E. coli (ETEC) are responsible for a significant percentage of ETEC diarrheal disease worldwide whether the disease presents as infant diarrhea with high mortality or as traveler's diarrhea. CFA/I pili (fimbriae) are virulence determinants that consist of repeating protein subunits (pilin), are found in several ETEC serogroups, and promote attachment to human intestinal mucosa. While CFA/I pili are highly immunogenic, the antigenic determinants of CFA/I have not been defined. The linear B-cell epitopes within the CFA/I mol. were identified as detd. by primate response to the immunizing protein. To do this, the authors (i) resolved the discrepancies in the literature on the complete amino acid sequence of CFA/I by N-terminal and internal protein sequencing of purified and selected proteolytic fragments of CFA/I, (ii) utilized this sequence to synthesize 140 overlapping octapeptides covalently attached to polyethylene pins which represented the entire CFA/I protein, (iii) immunized rhesus monkeys with multiple i.m. injections of purified CFA/I subunit in Freund's adjuvant, and (iv) tested serum from each monkey for its ability to recognize the octapeptides in a capture ELISA. Eight linear B-cell epitopes were identified; the region contg. an epitope at amino acids 1121 was strongly recognized by all 3 individual rhesus monkeys, while the amino acid stretches 22-29, 66-74, 93-101, and 124-136 each contained an epitope that was recognized by 2 of the 3 rhesus monkeys. The 3 other regions contg. epitopes were recognized by 1 of the 3 individuals. The monkey antiserum to pilus subunits recognized native intact pili by immunogold labeling of CFA/I pili present on whole H10407 cells. Therefore, immunization with pilus subunits induces antibody that clearly recognizes both synthetic linear epitopes and intact pili. The importance of these defined epitope-contg. regions as vaccine candidates is discussed.

L15 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 11

ACCESSION NUMBER: 1992:548824 CAPLUS
DOCUMENT NUMBER: 117:148824
TITLE: Helical stability as a means of predicting peptide T-cell epitopes
AUTHOR(S): **Nauss, Jeffrey L.; Reid, Robert H.**; Boedeker, Edgar C.
CORPORATE SOURCE: Dep. Gastroenterol., Walter Reed Army Inst. Res., Washington, DC, 20307-5100, USA
SOURCE: Pept.: Chem. Biol., Proc. Am. Pept. Symp., 12th (1992), Meeting Date 1991, 855-6. Editor(s):
Searcher : Shears 308-4994

Smith, John A.; Rivier, Jean E. ESCOM: Leiden, Neth.
CODEN: 57XGA9
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A helical stability method was effective at identifying T-cell epitopes.

L15 ANSWER 16 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 12
ACCESSION NUMBER: 1991:309023 BIOSIS
DOCUMENT NUMBER: BR41:17613
TITLE: IDENTIFICATION AND LOCALIZATION OF T CELL EPITOPES OF CFA-I USING LYMPHOCYTE PROLIFERATION TO SYNTHETIC PEPTIDES PRODUCED BY MULTIPLE PEPTIDE SYNTHESIS.
AUTHOR(S): JARBOE D; **REID R**; KODAK J; **NAUSS J**; CASSELS F; CARTER J; DEAL C; BOEDEKER E
CORPORATE SOURCE: WALTER REED ARMY INST. RES., WASHINGTON, D.C. 20307.
SOURCE: 75TH ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, ATLANTA, GEORGIA, USA, APRIL 21-25, 1991. FASEB (FED AM SOC EXP BIOL) J, (1991) 5 (5), A1362.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 17 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1991:380221 BIOSIS
DOCUMENT NUMBER: BR41:52611
TITLE: ENTERIC ADMINISTRATION OF AF-R1 PILI IN MICROSPHERES PREVENTS DISEASE AFTER CHALLENGE WITH DIARRHEA-PRODUCING ESCHERICHIA-COLI RDEC-1.
AUTHOR(S): MCQUEEN C; BOEDEKER E; GOMEZ J; FLEMING E; **REID R**; **WOLF M**; LE M; BROWN W
CORPORATE SOURCE: WALTER REED ARMY INST. RES., WASHINGTON, D.C.
SOURCE: DIGESTIVE DISEASE WEEK AND THE 92ND ANNUAL MEETING OF THE AMERICAN GASTROENTEROLOGICAL ASSOCIATION, NEW ORLEANS, LOUISIANA, USA, MAY 19-22, 1991. GASTROENTEROLOGY, (1991) 100 (5 PART 2), A599.
CODEN: GASTAB. ISSN: 0016-5085.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 18 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1992:39981 BIOSIS
DOCUMENT NUMBER: BR42:16131
TITLE: AF-R1 PILUS **PROTEIN** REMAINS **IMMUNOGENIC** TO RABBIT SPLEEN CELLS IMMUNIZED

IN-VITRO AFTER MICROENCAPSULATION.
AUTHOR(S): SAU K; **REID R H**; DAVIS D; BOEDEKER E C; NELLORE R; BHAGAT H R
CORPORATE SOURCE: WALTER REED ARMY INST. RES., WASHINGTON, D.C. 20307.
SOURCE: AAPS (AMERICAN ASSOCIATION OF PHARMACEUTICAL SCIENTISTS) SIXTH ANNUAL MEETING AND EXPOSITION, WASHINGTON, D.C., USA, NOVEMBER 17-21, 1991. PHARM RES (N Y), (1991) 8 (10 SUPPL), S164.
CODEN: PHREEB. ISSN: 0724-8741.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 19 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1991:381461 BIOSIS
DOCUMENT NUMBER: BR41:53851
TITLE: AF-R1 PILUS **PROTEIN** REMAINS **IMMUNOGENIC** TO RABBIT PEYER'S PATCH CELLS IMMUNIZED IN-VITRO AFTER MICROENCAPSULATION.
AUTHOR(S): DAVIS D; **REID R H**; SAU K
CORPORATE SOURCE: WALTER REED ARMY INST. RES., WASHINGTON, D.C. 20307.
SOURCE: 91ST GENERAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY 1991, DALLAS, TEXAS, USA, MAY 5-9, 1991. ABSTR GEN MEET AM SOC MICROBIOL, (1991) 91 (0), 132.
CODEN: AGMME8.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 20 OF 31 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 91288125 MEDLINE
DOCUMENT NUMBER: 91288125
TITLE: Safety and immunogenicity of a Haemophilus influenzae type b conjugate vaccine in a high risk American Indian population [published erratum appears in Pediatr Infect Dis J 1991 May;10(5):369] [see comments].
COMMENT: Comment in: Pediatr Infect Dis J 1991 Feb;10(2):89-91
AUTHOR: Santosham M; Hill J; Wolff M; **Reid R**; Lukacs L; Ahonkhai V
CORPORATE SOURCE: Department of International Health, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD 21205.
SOURCE: PEDIATRIC INFECTIOUS DISEASE JOURNAL, (1991 Feb) 10 (2) 113-7.
Journal code: OXJ. ISSN: 0891-3668.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199110
AB The safety and **immunogenicity** of a Haemophilus influenzae type b polysaccharide conjugate vaccine linked to the outer membrane **protein** complex of Neisseria meningitidis (Hib-OMP) were evaluated among Apache and Navajo infants and children. One dose of the Hib-OMP was given to 42 children who were from 12 and 60 months of age. Ninety-two infants 6 to 8 weeks old were given one dose of Hib-OMP at the time of enrollment. A subsequent dose of the vaccine was given 2 months later and a third dose was offered between 12 and 15 months of age. All of the 12- to 60-month-old children achieved a protective antibody concentration (greater than 1 microgram/ml) 1 month postvaccination. Among the 6- to 8-week-old infants only 11% of the Apaches and 8% of Navajos had a protective anti-PRP antibody concentration prevaccination. One month post vaccination 68% of the Apaches and 69% of the Navajos had protective anti-PRP antibody concentrations. One month after the second immunization 67% of the Apaches and 75% of Navajos had protective anti-PRP concentrations. Among the infants that received the third (booster) immunization (N = 28) 74% had protective anti-PRP antibody titers just before the booster immunization. One month after the booster immunization all of the infants had protective concentrations of anti-PRP antibody. We conclude that the Hib-OMP is safe and highly **immunogenic** among Apache and Navajo infants and children.

L15 ANSWER 21 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1991:380964 BIOSIS
DOCUMENT NUMBER: BR41:53354
TITLE: IDENTIFICATION OF LINEAR B-CELL EPITOPES OF ESCHERICHIA-COLI PILI.
AUTHOR(S): CASSELS F J; BYUN B H; **NAUSS J L**; **REID R H**; CARTER J M; DEAL C D; BOEDEKER E C
CORPORATE SOURCE: WALTER REED ARMY INST. RES., WASHINGTON, D.C. 20307.
SOURCE: 91ST GENERAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY 1991, DALLAS, TEXAS, USA, MAY 5-9, 1991. ABSTR GEN MEET AM SOC MICROBIOL, (1991) 91 (0), 49. CODEN: AGMME8.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 22 OF 31 MEDLINE
ACCESSION NUMBER: 90191985 MEDLINE
DOCUMENT NUMBER: 90191985
TITLE: Passive immunization for infection with Haemophilus influenzae type b.
AUTHOR: Santosham M; **Reid R**; Letson G W; Wolff M C; Siber G
CORPORATE SOURCE: Dept. of International Health, Johns Hopkins

University School of Hygiene and Public Health,
Baltimore, MD 21205.
SOURCE: PEDIATRICS, (1990 Apr) 85 (4 Pt 2) 662-6. Ref: 23
Journal code: OXV. ISSN: 0031-4005.
PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199006
AB Haemophilus influenzae type b is the leading cause of meningitis in children younger than 5 years of age in the United States. The incidence of infection with H influenzae type b in certain populations, such as Apache and Navajo Indians and Alaskan Eskimos, is 10 to 20 times higher than in the general US population. Another important feature of H influenzae type b infections in these populations is that more than 80% of the cases occur during the first year of life, with 35% to 45% occurring during the first 6 months. One of the currently licensed vaccines that contains the capsular polysaccharide of the H influenzae type b organism is not reliably **immunogenic** in infants younger than 18 months of age. A number of new H influenzae type b vaccines prepared by covalently coupling the H influenzae type b capsular polysaccharide with a **protein** carrier antigen are undergoing clinical evaluation. One of these conjugate vaccines was shown to be efficacious in preventing disease caused by H influenzae type b in Finnish infants when they were immunized at 3, 4, and 6 months of age. Unfortunately, in a recently concluded trial, the same vaccine was not found to be efficacious in preventing such disease in infants younger than 1 year of age among the Alaskan Eskimo population. We have evaluated an alternative approach for protecting high-risk infants.(ABSTRACT TRUNCATED AT 250 WORDS)

L15 ANSWER 23 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1990:299372 BIOSIS
DOCUMENT NUMBER: BR39:17553
TITLE: PREDICTING ANTIGENIC EPITOPES FROM GENE SEQUENCE DATA DEMONSTRATION OF A B-CELL EPITOPE IN AN ESCHERICHIA-COLI PILUS SUBUNIT.
AUTHOR(S): BOEDEKER E; **REID R**; JARBOE D; CASSELS F; TSENG L; **WOLF M**
CORPORATE SOURCE: DEP. GASTROENTEROL., WALTER REED ARMY INST. FOR RES., WASHINGTON, DC.
SOURCE: 91ST ANNUAL MEETING OF THE AMERICAN GASTROENTEROLOGICAL ASSOCIATION AND DIGESTIVE DISEASE WEEK, SAN ANTONIO, TEXAS, USA, MAY 12-18, 1990.

GASTROENTEROLOGY, (1990) 98 (5 PART 2), A439.
CODEN: GASTAB. ISSN: 0016-5085.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 24 OF 31 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1990:365603 BIOSIS
DOCUMENT NUMBER: BR39:50079
TITLE: THEORETICAL B-CELL EPITOPE FROM AF-R1 PILUS IS ANTIGENIC IMPLICATIONS FOR VACCINE DEVELOPMENT.
AUTHOR(S): **WOLF M**; **REID R**; JARBOE D; CASSELS F; TSENG Y; BOEDEKER E
CORPORATE SOURCE: DEP. GASTROENTEROL., WALTER REED ARMY INST. RES., WASHINGTON, D.C. 20307, USA.
SOURCE: 90TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY 1990, ANAHEIM, CALIFORNIA, USA, MAY 13-17, 1990. ABSTR ANNU MEET AM SOC MICROBIOL, (1990) 90 (0), 120.
CODEN: ASMACK. ISSN: 0094-8519.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L15 ANSWER 25 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 93:20211 CONFSCI
DOCUMENT NUMBER: 93020211
TITLE: Af/R1 pili in microspheres protect against challenge with diarrhea-producing E. coli (RDEC-1)
AUTHOR: McQueen, C.E.; Boedeker, E.C.; **Reid, R.**; Le, M.; **Wolf, M.**; Fleming, E.
SOURCE: Springer-Verlag, Budapest, Wesselenyi, utca 28, H-1075, Hungary.
Meeting Info.: 923 0119: 8th International Congress of Immunology (9230119). Budapest (Hungary). 23-28 Aug 1992. International Union of Immunological Societies.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

L15 ANSWER 26 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 93:20223 CONFSCI
DOCUMENT NUMBER: 93020223
TITLE: Primary in vitro **immunogenicity** of **protein** and **peptide** antigens in PLGA microspheres
AUTHOR: **Reid, R.H.**; Kodak, J.; Jarboe, D.L.; Davis, D.; Sau, K.; Boedeker, R.C.

SOURCE: Springer-Verlag, Budapest, Wesselenyi, utca 28, H-1075, Hungary.
Meeting Info.: 923 0119: 8th International Congress of Immunology (9230119). Budapest (Hungary). 23-28 Aug 1992. International Union of Immunological Societies.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

L15 ANSWER 27 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 94:1931 CONFSCI
DOCUMENT NUMBER: 94013968
TITLE: Binding interactions of peptides in a structural homology model of the DR1 class II MHC
AUTHOR: **Nauss, J.L.; Reid, R.H.;**
Sadegh-Nasseri, S.
CORPORATE SOURCE: Dep. Gastroenterol., Walter Reed Army Inst. Res., Washington, DC 20307, USA
SOURCE: American Association of Immunologists428 East Preston Street, Baltimore, MD 21202, USA, Abstracts, Journal of Immunology, ISSN: 002-1767, Volume 150/Number 8/Part II/April 15, 1993 Paper No. 221.
Meeting Info.: 932 0173: Joint Meeting of the American Association of Immunologists and the Clinical Immunology Society (9320173). Denver, CO (USA). 21-25 May 1993.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L15 ANSWER 28 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 93:21946 CONFSCI
DOCUMENT NUMBER: 93021946
TITLE: T-cell epitopes may form stable helices
AUTHOR: **Nauss, J.L.; Reid, R.H.;**
Boedeker, E.C.
SOURCE: Springer-Verlag, Budapest, Wesselenyi, utca 28, H-1075, Hungary.
Meeting Info.: 923 0119: 8th International Congress of Immunology (9230119). Budapest (Hungary). 23-28 Aug 1992. International Union of Immunological Societies.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L15 ANSWER 29 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 91:34721 CONFSCI

DOCUMENT NUMBER: 92003163
TITLE: AF/R1 pilus **protein** remains **immunogenic** to rabbit Peyer's patch cells immunized in vitro after microencapsulation
AUTHOR: Davis, D.; **Reid, R.H.**; Sau, K.
CORPORATE SOURCE: Walter Reed Army Inst. Res., Washington, DC
SOURCE: ASM, 1325 Massachusetts Avenue NW, Washington, DC 20005, USA, Poster Paper No. E89.
Meeting Info.: 912 0375: 91st General Meeting of the American Society for Microbiology (9120375). Dallas, TX (USA). 5-9 May 1991. American Society for Microbiology.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

L15 ANSWER 30 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 91:33226 CONFSCI
DOCUMENT NUMBER: 92001668
TITLE: Identification of linear B-cell epitopes of Escherichia coli pili
AUTHOR: Cassels, F.J.; Byun, B.H.; **Nauss, J.L.**; **Reid, R.H.**; Carter, J.M.; Deal, C.D.
CORPORATE SOURCE: Walter Reed Army Inst. Res., Washington, DC
SOURCE: ASM, 1325 Massachusetts Avenue NW, Washington, DC 20005, USA, Poster Paper No. B141.
Meeting Info.: 912 0375: 91st General Meeting of the American Society for Microbiology (9120375). Dallas, TX (USA). 5-9 May 1991. American Society for Microbiology.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

L15 ANSWER 31 OF 31 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 91:27325 CONFSCI
DOCUMENT NUMBER: 91056122
TITLE: Identification and localization of T cell epitopes of CFA/I using lymphocyte proliferation to synthetic peptides produced by multiple peptide synthesis
AUTHOR: Jarboe, D.; **Reid, R.**; Kodak, J.; **Nauss, J.**; Cassels, F.; Carter, J.
CORPORATE SOURCE: Walter Reed Army Inst. Res.
SOURCE: FASEB, 9650 Rockville Pike, Bethesda, MD 20814, USA, Abstracts, FASEB Journal Poster Paper.
Meeting Info.: 912 0204: 75th Annual Meeting of FASEB (9120204). Atlanta, GA (USA). 21-25 Apr 1991. Federation of American Societies for Experimental Biology.

Searcher : Shears 308-4994

DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

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